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FEE TRANSMITTAL
FOR FY 2005

Effective 10/01/2004. Patent fees are subject to annual revision.

☐ Applicant Claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT (\$ 340.00)

Complete if Known

Application Number	09/890,863
Filing Date	August 7, 2001
First Named Inventor	Junichi HAYAKAWA et al.
Examiner Name	J. Befumo
Group Art Unit	1771
Attorney Docket No.	0670-0264

METHOD OF PAYMENT

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit
Account
Number

50-2280

Deposit
Account
Name

Robinson Intellectual Property
Law Office

- ☒ Charge Any Additional Fee Required
Under 37 CFR 1.16 and 1.17 and
credit overpayments

- ☐ Applicant claims small entity status.
See 37 CFR 1.27

2. ☒ **Payment Enclosed:**

- ☒ Check ☐ Credit Card ☐ Money
Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Fee (\$)	Small Entity Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	790	2001	395	Utility filing fee	
1002	350	2002	175	Design filing fee	
1003	550	2003	275	Plant filing fee	
1004	790	2004	395	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$)

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
-20** =	X	\$18	=
Independent Claims -3** =	X	\$88	=
Multiple Dependent			=

Large Entity Fee Code	Fee (\$)	Small Entity Fee Code	Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	88	2201	44	Independent claims in excess of 3
1203	300	2203	150	Multiple dependent claim, if not paid
1204	88	2204	44	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Fee Code	Large Entity Fee (\$)	Small Entity Fee Code	Small Entity Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	430	2252	215	Extension for reply within second month	
1253	980	2253	490	Extension for reply within third month	
1254	1,530	2254	765	Extension for reply within fourth month	
1255	2,080	2255	1040	Extension for reply within fifth month	
1401	340	2401	170	Notice of Appeal	
1402	340	2402	170	Filing a brief in support of an appeal	\$340
1403	300	2403	150	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,370	2453	685	Petition to revive - unintentional	
1501	1,370	2501	685	Utility issue fee (or reissue)	
1502	490	2502	245	Design issue fee	
1503	660	2503	330	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	790	2809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.29(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	
Other fee (specify) _____					

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 340.00)

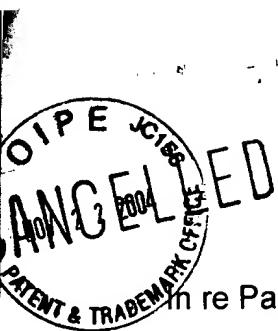
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on 11-23-04 *Adelle M. Stanger*

SUBMITTED BY

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Signature	<i>[Signature]</i>			Date	11-23-04

Complete (if applicable)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Junichi HAYAKAWA et al.

Serial No. 09/890,863

Filed: August 7, 2001

For: WOVEN FABRIC FOR LOUD-
SPEAKER DIAPHRAGM,
DIAPHRAGM FOR LOUD-SPEAKER
AND LOUD-SPEAKER

) Group Art Unit: 1771

) Examiner: J. Befumo

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11-23-04Adeline StampsAPPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 35 U.S.C. § 134 and 37 C.F.R. § 1.192(a),
Appellants submit this Appeal Brief to appeal the examiner's final rejection of claims 19-
24 in the Official Action mailed March 23, 2004.

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I. REAL PARTY IN INTEREST

The named inventors have assigned all ownership rights in the pending application to Kabushiki Kaisha Kenwood, 14-6, Dougenzaka 1-chome, Shibuya-ku, Tokyo 150-0043, Japan, which is the real party in interest.

II. RELATED APPEALS AND INTERFERENCES

The appellants, their legal representatives, and the assignee are not aware of any other prior or pending appeals, interferences or judicial proceedings which will directly affect or be directly affected by, or have a bearing on the Board's decision in this appeal.

III. STATUS OF THE CLAIMS

Claims 19-24 are pending in the present application, of which claims 19, 23 and 24 are independent. Claims 1-18 were canceled and claims 19-24 stand rejected. No claims have been deemed allowable by the examiner.

IV. STATUS OF AMENDMENTS

The Appellants filed an *Amendment After Final* on July 23, 2004, but the *Amendment After Final* was not entered by the Examiner for reasons stated in an *Advisory Action* mailed August 19, 2004. In response to the *Advisory Action*, the Appellants filed a *Notice of Appeal* regarding the rejection of claims 19-24. The claims that are the subject of the present Appeal are as set forth in the *Amendment* filed July 10, 2003. The Appellants do not wish to have the *Amendment After Final* entered. Thus, the status of the claims in this application is as set forth above, and in Appendix A. All prior amendments are believed to have been entered in the present application.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a loud-speaker (e.g. Figure 6, loud-speaker 3) comprising a diaphragm (e.g. diaphragm 4), a portion of the diaphragm comprising a woven fabric woven with a thread (e.g. Figures 1 to 5) comprising fibers of plural kinds, characterized in that at least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber (e.g. PBO fiber 1) and at

least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments (e.g. polyester fiber 2). Also, the present invention is directed to a diaphragm for a loud-speaker comprising a woven fabric woven with the thread described above. Further, the present invention is directed to a woven fabric for loud-speaker diaphragm using a woven fabric woven with the thread described above.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Paragraph 4 of the Official Action rejects claims 19-24 as anticipated by U.S. Patent No. 5,233,821 to Weber, Jr. et al. The claims shall not stand or fall together, but shall be separately argued as follows:

1. Whether claims 22 and 24 are anticipated by Weber.
2. Whether claims 21 and 23 are anticipated by Weber.
3. Whether claims 19 and 20 are anticipated by Weber.

VII. ARGUMENTS

Paragraph 4 of the Official Action rejects claims 19-24 as being anticipated by U.S. Patent No. 5,233,821 to Weber, Jr. et al. The Appellants respectfully traverse the rejection because the Official Action has not established an anticipation rejection.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

The Appellants respectfully submit that an anticipation rejection cannot be maintained against the independent claims of the present invention. Weber does not teach all the elements of the independent claims, either explicitly or inherently. Specifically, Weber does not teach a loud-speaker comprising a diaphragm, a diaphragm for a loud-speaker, or a woven fabric for a loud-speaker diaphragm, either explicitly or inherently.

Weber is directed to providing a fabric for a garment which is "useful for protection against fire and/or cutting" (column 1, lines 6-8). More specifically, Weber appears to describe synthesizing a fiber such as PBO having a desired tensile strength, forming a

composite thread of a plurality of fibers containing the synthesized fiber, wrapping the composite thread with a wrap fiber and weaving the wrapped composite threads into the fabric by a prior art method. As noted in detail below, Weber is completely silent as to a loud-speaker, a loud-speaker diaphragm or a woven fabric for a loud-speaker diaphragm, and Weber does not inherently teach such features.

1. Whether claims 22 and 24 are anticipated by Weber.

Dependent claim 22 positively recites a loud-speaker comprising a loud-speaker diaphragm. Specifically, claim 22 recites a loud-speaker comprising a loud-speaker diaphragm, characterized in that the loud-speaker diaphragm is made up of the woven fabric for a loud-speaker diaphragm according to claims 19 or 20. Independent claim 24 recites a loud-speaker comprising a diaphragm. With respect to claims 22 and 24, the Official Action asserts that “the limitation that the woven fabric is used in a loud-speaker is viewed as intended use since the claims fail to positively recite the structure of the loud-speaker other than the woven fabric itself” (page 3, Paper No. 0304). The Appellants respectfully disagree and traverse the above assertions.

Initially, it is noted that claims 22 and 24 do not recite that “the woven fabric is used in a loud-speaker.” This is a mischaracterization of the claims. Rather, a loud-speaker and a loud-speaker diaphragm are positively recited in the claims as described in detail above. These features are also described in the specification, for example at paragraph [0034], and in the drawings at Figures 6(A) and 6(B). The descriptions in the present specification and in Figures 6(A) and 6(B) indicate that a loud-speaker is a sound producing device. Specifically, an example of a loud-speaker is shown in Figures 6(A) and 6(B) and is marked with reference number 3. The specification notes the following: “the above described woven fabric is used on the surface of the diaphragm 4 of the loud-speaker [3] ... The diaphragm 4 for the loud-speaker using the above described woven fabric for the loud-speaker diaphragm is installed in the main body of the loud-speaker 3” (page 13, paragraphs [0034] – [0035]). The loud-speaker recited in claims 22 and 24 is not merely an intended use, rather it is a positively recited element of the claim and cannot be dismissed. The same is true of the diaphragm recited in claims 22 and 24. The Appellants simply cannot understand how the Official Action comes to the conclusion

that the positively recited limitations of a loud-speaker and a loud-speaker diaphragm can be viewed as intended use.

The Official Action has presented Weber, which appears to teach a fabric for a garment which is “useful for protection against fire and/or cutting.” In other words, Weber teaches a glove comprising a fabric with a PBO thread, etc. Weber has absolutely nothing to do with loud-speakers, either explicitly or inherently. Therefore, Weber does not teach a loud-speaker, either explicitly or inherently.

2. Whether claims 21 and 23 are anticipated by Weber.

Dependent claim 21 positively recites a diaphragm for a loud-speaker. Specifically, claim 21 recites a diaphragm for a loud-speaker, characterized in that the woven fabric for a loud-speaker diaphragm according to claims 19 or 20 is used in at least a portion of the diaphragm. Independent claim 23 recites a diaphragm for a loud-speaker. With respect to claims 21 and 23, the Official Action asserts that “claims 21 and 23 which recite ‘a diaphragm for a loud speaker’ in the preamble is interpreted as intended use since the Applicant fails to recite any further structural limitations to the woven fabric” (page 4, Paper No. 0304). The Appellants respectfully disagree and traverse the above assertions.

A diaphragm for a loud-speaker is positively recited in claims 21 and 23 as described in detail above. The descriptions in the present specification and in Figures 6(A) and 6(B) indicate that a diaphragm is that portion of a loud-speaker which vibrates to produce sound waves. Specifically, an example of a diaphragm is shown in Figures 6(A) and 6(B) and is marked with reference number 4. As noted above, the specification describes the following: “the above described woven fabric is used on the surface of the diaphragm 4 of the loud-speaker [3] ... The diaphragm 4 for the loud-speaker using the above described woven fabric for the loud-speaker diaphragm is installed in the main body of the loud-speaker 3” (page 13, paragraphs [0034] – [0035]). The diaphragm recited in claims 21 and 23 is not merely an intended use, rather it is a positively recited feature of the claim and cannot be dismissed.

As noted above, the Official Action has presented Weber, which teaches, for example, a glove comprising a fabric with a PBO thread. In addition to having nothing to

do with loud-speakers, Weber has absolutely nothing to do with diaphragms for loud-speakers, either explicitly or inherently. Therefore, Weber does not teach a diaphragm, either explicitly or inherently.

3. Whether claims 19 and 20 are anticipated by Weber.

Independent claim 19 recites "a woven fabric for loud-speaker diaphragm." The Official Action asserts that the "loud speaker diaphragm is not positively recited, and is considered intended use, and the prior art should only be capable of performing the intended use, which in this case is true" (page 4, Paper No. 0304). The Applicants respectfully disagree and traverse the above-referenced assertions.

MPEP § 2111.02, under the heading "PREAMBLE STATEMENTS LIMITING STRUCTURE" notes the following:

Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation. ... In re Stencel, 828 F.2d 751, 4 USPQ2d 1071 (Fed. Cir. 1987). (The claim at issue was directed to a driver for setting a joint of a threaded collar, however the body of the claim did not directly include the structure of the collar as part of the claimed article. The examiner did not consider the preamble, which did set forth the structure of the collar, as limiting the claim. The court found that the collar structure could not be ignored. While the claim was not directly limited to the collar, the collar structure recited in the preamble did limit the structure of the driver. "[T]he framework - the teachings of the prior art - against which patentability is measured is not all drivers broadly, but drivers suitable for use in combination with this collar, for the claims are so limited." *Id.* at 1073, 828 F.2d at 754.).

MPEP § 2111.02, under the heading "PREAMBLE STATEMENTS RECITING PURPOSE OR INTENDED USE" notes the following:

The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use "can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim. ...

During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference ... between the claimed invention and the prior art. If so, the recitation serves to limit the claim.

A review of the entirety of the record indicates that the inventors actually invented and intended to encompass a woven fabric for a loud-speaker diaphragm. The specification is clearly directed to a woven fabric for a loud-speaker diaphragm as recited in the abstract, and in paragraphs [0001], [0009], [0013], [0015], [0016], [0019] – [0023], [0027], [0032], [0035] – [0037], [0039] – [0041] and [0043]. The Appellants respectfully submit that the teachings of the prior art against which patentability is measured should not be all woven fabrics broadly, but woven fabrics suitable for use in combination with a loud-speaker or a loud-speaker diaphragm. As a practical matter, a woven fabric for a loud-speaker diaphragm at least has a different shape from, for example, the glove of Weber. As such, the recitation of “a woven fabric for loud-speaker diaphragm” serves to limit the claim and should be interpreted accordingly. For the reasons stated in detail above, Weber does not teach a loud-speaker diaphragm, either explicitly or inherently.

Since Weber does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

For all of the above reasons, the present application is believed to be in condition for allowance and favorable reconsideration is respectfully requested. If the Examiner feels further discussions would expedite prosecution of this application, she is invited to contact the undersigned.

Respectfully submitted,

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VIII. APPENDICES

A.	CLAIMS INVOLVED IN THE APPEAL	10
B.	REFERENCES	12
	1. U.S. Patent No. 5,233,821 to Weber, Jr. et al.	
C.	EVIDENCE APPENDIX	12
D.	RELATED PROCEEDINGS APPENDIX	12

APPENDIX A
PENDING CLAIMS

1-18. (Canceled)

19. (Previously Presented) A woven fabric for loud-speaker diaphragm using a woven fabric woven with a thread comprising fibers of plural kinds, characterized in that at least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber and at least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments.

20. (Previously Presented) The woven fabric for loud-speaker diaphragm according to claim 19, characterized in that said colored fiber is made up of glass, polyester or polypropylene.

21. (Previously Presented) A diaphragm for loud-speaker, characterized in that said woven fabric for loud-speaker diaphragm according to claims 19 or 20 is used in at least a portion of the diaphragm.

22. (Previously Presented) A loud-speaker comprising a loud-speaker diaphragm, characterized in that the loud-speaker diaphragm is made up of said woven fabric for loud-speaker diaphragm according to claims 19 or 20.

23. (Previously Presented) A diaphragm for a loud-speaker comprising a woven fabric woven with a thread comprising fibers of plural kinds, characterized in that at

least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber and at least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments.

24. (Previously Presented) A loud-speaker comprising a diaphragm, a portion of the diaphragm comprising a woven fabric woven with a thread comprising fibers of plural kinds, characterized in that at least one of said fibers of the plural kinds is a fiber with poor dye-affinity such as PBO (poly(p-phenylene benzobisoxazole)) fiber and at least another one of said fibers of the plural kinds is a fiber colored with dyes or pigments.

APPENDIX B
REFERENCES

Copies attached.

APPENDIX C
EVIDENCE APPENDIX

Not applicable.

APPENDIX D
RELATED PROCEEDINGS APPENDIX

Not applicable.